GUIDELINE 4 - RECORDKEEPING AND REPORTING BY OWNERS OR OPERATORS OF MUNICIPAL WASTE LANDFILLS

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I. Introduction

The owners or operators of all waste management facilities, except those permitted by rule, are required to keep operating records. Municipal Solid Waste Landfills (MSWLs) must comply with the recordkeeping requirements found in 40 CFR § 258.29. The owner or operator is required to maintain records of demonstrations, inspections, monitoring results, design documents, plans, operational procedures, notices, cost estimates and financial assurance documentation. A new facility is not allowed to accept waste until the Department has received and approved a report which includes narrative, drawings and test results which certify that the facility was constructed in accordance with approved plans and specifications and as required by the permit. In addition, the owners or operators must maintain records on the categories and weights or volumes of solid waste received at the facility.

II. Recordkeeping Requirements

The operating record should be maintained in a single location. The location may be at the facility, or at corporate headquarters or city hall but should be near the facility. Records should be maintained throughout the life of the facility, including the postclosure care period. Upon completion of each document required in the operating record, the Department should be notified of its placement in the operating record.

A. Recordkeeping at the landfill should include the following:

1. Location restriction demonstrations.

   Demonstrations are required for any location restrictions. The location restrictions apply to:

   a. Airports;
   b. Floodplains;
   c. Faulted areas;
   d. Seismic impact zones; and
   e. Unstable areas.

2. Inspection records, training procedures and notification procedures. Inspection records should include:

   a. Date and time wastes were received during the inspection;
   b. Names of the transporter and the driver;
   c. Source of the wastes;
   d. Vehicle identification numbers; and
   e. All observations made by the inspector.

   Training records should include procedures used to train personnel for hazardous waste and PCB waste recognition.

   Notification to EPA, state and local agencies should be documented.

3. Gas monitoring results and any remediation plans. If gas levels exceed 25 percent of the Lower Explosive Limit (LEL) for methane in any facility structures or exceed the LEL for methane at the facility boundary, the

owner or operator must place in the operating record, within seven days, the methane gas levels detected, and a description of the steps taken to protect human health. Within sixty (60) days of detection, the owner or operator must place a copy of the remediation plan used for gas releases, in the operating record.

4. Municipal Solid Waste Landfill Facility (MSWLF) unit design documentation for placement of leachate or gas condensate in a MSWLF.

   If leachate and/or gas condensate are recirculated into the MSWLF, documentation of a composite liner and a leachate collection system capable of maintaining a maximum of 30 cm of leachate head in the MSWLF must be placed in the operating record.

5. Demonstration, certification, monitoring, testing, or analytical finding required by the groundwater criteria. Documents to be placed in the operating record include:

   a. Documentation of design, installation, development and decommission of any monitoring wells, piezometers and other measurement, sampling and analytical devices;

   b. Certification of the number, spacing and depths of the monitoring systems;

   c. Documentation of sampling and analysis programs and statistical procedures;

   d. Notice of finding a statistically significant increase over background for one or more of the constituents at any monitoring well at or the compliance boundary;

   e. Certification that an error in sampling, analysis, statistical evaluation, or natural variation in groundwater caused an increase (false positive) of constituents, or that a source other than the MWLF unit cause the contamination (if appropriate);

   f. A notice identifying any constituents that have been detected in groundwater and their concentrations;

   g. A notice identifying the constituents that have exceeded the groundwater protection standard;

   h. A certification that a source other than MWLF caused the contamination or an error in sampling, analysis, statistical evaluation, or natural groundwater variation caused the statistically significant increase (false positive) in constituents (if applicable);

   I. The remedies selected to remediate groundwater contamination; and

   j. Certification of remediation completion.

6. Closure and postclosure plans and any monitoring, testing, or analytical data associated with these plans.

   The landfill owner or operator is required to place a copy of the closure plan, postclosure plan and a notice of intent to close the facility in the operating record. Monitoring, testing, or analytical data associated with closure and postclosure information generated from groundwater and landfill gas monitoring must be placed in the operating record. A copy of the notation on the deed to the MSWLF property, as required following closure along with certification and verification that closure and postclosure activities have been completed in accordance with their respective plans, also must be placed in the operating record.

7. Estimates and financial assurance documentation required.

   The following documents must be placed in the operating record:

a. An estimate of the cost of hiring a third party to close the largest area of all MSWLF units ever requiring final cover;

b. Justification for the reduction of the closure cost estimate and the amount of financial assurance (if appropriate);

c. A cost estimate cost of hiring a third party to conduct postclosure care;

d. An estimate and financial assurance for the cost of a third party to conduct corrective action; and

e. A copy of each financial assurance mechanism.

III. Reporting Requirements

Nonhazardous solid waste facilities in North Dakota may be required to submit regular reports to the North Dakota Department of Health as required in their site plans or permit conditions. The Department has received requests for clarification of the type of information that should be addressed in these reports. Some facilities are required to submit quarterly reports, however, some facilities may be required to submit reports on a different schedule. These guidelines supply reporting requirement information for landfills as well as for landfarms, impoundments, transfer stations and other types of facilities.

Basically, the regular reporting requirements are necessary to keep the Department informed as to the status of the operation and site conditions. The reports should essentially be a summary of the daily log books and records kept onsite by the operational personnel as well as any inspections conducted of the site by any other facility personnel. As necessary, pictures, maps and diagrams should accompany the report to help document site conditions. Disposal facilities should keep records on the types and amounts of waste accepted; the generators of the waste; waste analysis and characteristics; where it is disposed in the facility; and other specific information on surface water control, site geologic conditions in the disposal trenches; status of any liners or leachate collection systems; any settling of filled areas, reclamation of filled areas, etc. Different types of facilities including inert waste, municipal waste, industrial waste and landfarms will need to adapt these guidelines to meet their reporting needs. The information and a suggested format for the regular reports is as follows:

A. Waste Disposed or Handled at Facility.

A table or spreadsheet summarizing information on the waste disposed at the facility; a suggested format would be as follows:

Date	Generator	Transporter	Waste Type	Loads	Yardage	Weight (tons)

For facilities that receive regular shipments of waste from a specific generator, the waste record could be reported as a weekly or monthly summary. Facilities that receive small amounts of waste from numerous generators (i.e., individual homeowners in pickups, trailers, etc.) could provide a simple summary of the quantities. Any additional information on the waste characteristics should be provided as well as an identification of the disposal area for the wastes. Waste disposal areas should be identified by general dates on a map or diagram. In addition, any special handling for any wastes disposed or allowed to be disposed or otherwise managed at the facility (i.e., asbestos waste, oil contaminated soil, yard wastes, etc.) should be explained and appropriately identified. Any specific problems in the types of wastes or the inclusion of hazardous materials or wastes with the waste stream should be clearly identified. Information should also be included on any wastes or recyclable material stockpiling or handling (i.e., metal scrap, wood, compost piles,

etc.). For industrial waste or landfarm sites or as appropriate for other types of facilities, the report should include all necessary waste analysis information for specific waste streams.

B. Control of Spillage, Windblown Debris, Dusts, Odors, Flies and Vermin.

This section should assess any waste spillage and subsequent cleanup and decontamination on haul roads or in waste management areas and any significant release of windblown material to the surrounding area and subsequent cleanup of windblown debris. The generation of dust, odors, flies, or vermin should also be regularly assessed and appropriate control measures detailed.

C. Condition of Berms, Dams and Non-contact surface Water Containment Structures.

This section should address the construction, repair, maintenance or replacement of any berms, dams, ponds or other containment structures around the waste management areas and any water contained in them.

D. Surface Water Run-on and Run off Control.

This section should discuss any significant surface water run-on or run off events including flow into the solid waste management areas, flow out of the management area, surface water interception by berms and dams and any other pertinent information. To help monitor surface water run-on and run off controls, all facilities should keep regular track of how much rain falls in the area of the facility and during spring thaws, any appreciable run-on/run off from snow melt. Appropriate maps or diagrams should be provided to show the areas of management activity and the surface water management features. If appreciable amounts of water accumulate onsite or around the site, some surface water analysis may be required to document water quality. Any controlled or uncontrolled release of water should be addressed. Proper Departmentally approved procedures must be followed if any water is to be released from the site. Surface water quality and management information, as required or necessary, should also be submitted in this section of the report.

E. Removal and Stockpiling of Suitable Plant Growth or Topsoil Material.

Landfill facilities must remove all suitable topsoil material (soil A and upper part of the B horizons) from areas to be used for disposal. This should include the material in the disposal area and any other areas disturbed by landfill operation activities including haul roads. The report and maps should address suitable topsoil material removal and stockpiling, revegetation of stockpiles of the material (to control erosion), and any removal of topsoil from stockpiles for management or respreading on reclaimed areas.

F. Geologic, Soil and Liner Conditions in the Solid Waste Management Areas.

As appropriate for the disposal facility, this section should address the types of geologic materials or soils encountered in the solid waste management areas and, if required, the condition of the liner underlying the bottom and sides of the facility. This section should especially address any significant variations in normal operating procedures or conditions. This might include interception of any lignite, sand, gravel, or fractured materials; any interception of ground water, any breaching or damage to the liner, and the general condition of the liners underlying the facility. For any liner construction or repair, appropriate Departmentally approved Quality Assurance/Quality Control must be followed and appropriate plans and detailed reports filed with the Department.

G. The Condition, Operation and Maintenance of Leachate Collection Systems.

Owners/Operators of facilities with leachate collection or extraction systems need to regularly inspect and maintain the leachate management systems. For facilities with such systems, an assessment of the condition of leachate collection sand bedding, gravel sumps, piping, pumping equipment, manholes and other structures

should be provided. Any damage to such facilities and/or subsequent repair should be addressed. A quantification and schedule or frequency of the leachate removed from the site, the level of leachate within the landfill, the quality of the leachate and its management should be addressed.

H. The Status of Landfill Trench Filling and Covering Operations.

This section should address a brief description of the condition of the disposal area, the filling of the landfilled area to grade and the placement of daily cover and interim cover as necessary before final site reclamation. This section could also address any settling of disposed areas after filling.

I. Landfarming Activities.

For landfarm facilities or solid waste disposal facilities that maintain an area for landfarming oil, gasoline or other hydrocarbon contaminated soil, the report should document appropriate activities as outlined in these guidelines. This should include the summary of waste disposed or handled in the landfarm area (see item #1). Additional information specific to landfarming activities would include the inspection schedule; rates of waste application; appropriate waste characterization; the application of any fertilizer, water, soil amendments, innoculants, etc.; tillage activities; additional soil sampling and waste breakdown rates and any other pertinent information.

J. Composting Activities.

For facilities that maintain areas for composting yard wastes, general information should be provided as outlined in this guideline as well as the monitoring of compost pile odors, moisture, temperature and general condition. A summary of the pile size, frequency of turning and maintenance should be provided.

K. The Condition of any Impoundments.

Any impoundments onsite for managing regulated waste materials, leachate, or water that has been in contact with or degraded by solid waste materials should be assessed in the regular reports. Information to include would be the volume in the pond, remaining capacity (excepting the two feet of freeboard), and the amount of freeboard. The condition of any liners, piping, spillways or other features should be addressed. In addition, the quality of liquids or waste materials contained in the pond and any management activities as well as any leakage, spillage, overtopping, or other unforeseen events should be addressed.

L. Site Reclamation.

This section should address the final covering as it is completed and, as appropriate, as identified in the Facility Operation and Closure Plan. This should include the condition of the final slope of the site as identified in the plans and as provided in item 8 above; the construction of a low permeability cap over the landfilled wastes utilizing compacted clay or other material as approved by the Department; the placement of additional fill soil or drainage media; the replacement of any buffer soil and suitable topsoil material; and the final revegetation of filled areas of the site. A description of the Quality Assurance/Quality Control procedures for site capping and reclamation should be addressed and appropriate plans and reports filed with the Department. This section should also address any significant surface water erosion, settling, cover repair, or any other pertinent issues. Regular reports should also address the success of the site revegetation as well as any infilling of settled areas.

M. Ground Water and Surface Water Monitoring and Assessment of any Leachate Seepage.The report should include a section on ground water and surface water monitoring for the reporting period. This information should include water levels and laboratory analysis as required in the facility permit. The inspection procedures should also evaluate the condition of the wells and any springs or leachate seepage in or around the site.

N. Methane Generation.

For municipal waste facilities, especially those with methane collection or venting system, a regular assessment of methane generation should be completed and recorded. Some closed areas of landfills may note methane bubbles in areas of seepage. Other sites may observe dead vegetation or no vegetation in areas where methane is seeping or building up. Such information should be assessed regularly and reported in the regular report.

O. Plan of Operation.

The report should include a summary of the general disposal standards. An example for a municipal landfill would be the requirements as stated in the ND Solid Waste Management Rules 33-20-04.1-03.2 Plan of Operation. The owner or operator shall inspect the facility to ensure compliance with this article, a permit, and approved plans. The owner or operator shall keep an inspection log including information such as the date of inspection, the name of the inspector, a notation of observations made, and the date and nature of any repairs or corrective action taken.

An assessment for municipal landfill site operation would include, but is not limited to, waste compacting, covering, burning, windblown paper problems and access control. The assessment should be made on a regular basis as required in the permit or operating plans or, at a minimum, on a weekly basis for inert waste sites. Municipal waste sites should monitor these conditions every day the site is open; however, the checklist could be completed weekly. A checklist similar to the attached checklist should be adapted and developed for the various types of facilities. The appropriate checklist should be completed and a summary of the inspection reports should be filed with the Department. "33-20-04.1-03.2 plan of operation add this)

P. Permit and Site Development and Operating Plan.

A landfill owner/operator should regularly review his site development plans, operating plans, contingency plans and other specific facility plans as well as his permit and the North Dakota Solid Waste Management Rules to ensure that the facility is in compliance with all necessary requirements. Any anticipated or necessary changes may necessitate a change in the plans and/or the permit. Copies of all necessary documents should be readily available at the site and site personnel should be well trained in their requirements. The regular report should summarize any training of site personnel and should provide an assessment of the facilities compliance with all necessary requirements and permit conditions. Any updates of the contingency plans or site plans are subject to Departmental approval. Significant changes in or changes in the method of operation of a landfill may necessitate a formal modification of the permit.

Appropriate maps, pictures and diagrams should be included with the regular reports to describe the site. Pictures should be affixed to an 8 ½ x 11-inch sheet of paper with appropriate information noted for each picture. Information with the pictures should include: (1) the name of the facility; (2) the subject; (3) the location; (4) the date and time; (5) the photographer; and (6) any comments. It is beneficial to formalize the reporting requirements so that they are consistent and easily trackable. It is suggested that the owner and operators keep copies of all information for their personal files. In addition, it is often beneficial to file copies of the reports with any local governmental bodies, health districts, or other interested regulatory or governmental officials.